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EXPLANATION OF THE FIGURES.

PLATE XII. Branch of the Urari plant, Strychnos toxifera, Schomb., less than natural size.

PLATE XIII. Fig. 1. Fruit of the Urari plant, natural size. Fig. 2. Do. cut transversely, natural size. Fig. 3. Seed of do., natural size.

XLIII.—A List of the Fossil Shells found in a Fluvio-Marine Deposit at Clacton in Essex. By Mr. J. BROWN*.

GENTLEMEN,

THE fossils named in the accompanying list were obtained by searching the beds which compose the fluvio-marine deposit at Clacton, on the eastern coast of Essex, a section of which is given in the 'Mag. Nat. Hist.,' vol. iv. p. 199, N. S., with a description of the geological features of that formation.

In a note appended to that article, which accompanies the above-mentioned section, a promise is held out to the readers of the Magazine, that a list of the fossils, which have excited a peculiar and lively interest in the Clacton deposit, would at some future opportunity be furnished.

It is intended by the present communication to supply that deficiency; and as the greater number of the fossil shells, both of marine and freshwater species, collected from those beds, have been very recently submitted to the notice of Mr. J. D. C. Sowerby, the list is offered with the greater confidence.

Fossils of the Bed No. 4. in Section fig. 9. Mag. Nat. Hist. vol. iv. p. 194, N. S.

Marine.

- 1. Balanus ovularis ? Lam.
- 2. Tellina solidula.

3. _____ tenuis.

- 4. Mactra ovalis, Sow. A crag fossil.
- 5. Mytilus edulis. Mostly very young.
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- 7. Littorina Ulvæ.
- 8. Flustra. Encrusting shells and pebbles.

Freshwater Shells, etc. of No. 4.

- 9. Pisidium amnicum, Gray.
- 10. Paludina impura ; Bithinia tentaculata, Gray.
- 11. —— thermalis?
- 12. Valvata piscinalis, Gray.
- 13. ____ cristata, Gray.
- 14. Cypris Faba.
- 15. Chara hispida?

Fossils of No. 6. Section fig. 9. descending series. Marine and Freshwater, the same as in No. 4.

Freshwater Fossils found in Bed No. 7. Sec. 9.

- 1. Limneus auricularius, Gray.
- 2. Paludina impura ; Bithinia tentaculata, Gray.
- 3. ____ minuta.
- 4. Valvata piscinalis, Gray.
- 5. ____ cristata, Gray.
- 6. Planorbis imbricatus.
- 7. _____ lævis. 8. _____ helicoides. A new species. Sowerby.
- 9. _____ marginatus. 10. _____ contortus.
- 11. Ancylus fluviatilis.
- 12. Pisidium amnicum, Gray.
- 13. <u>Henslowianum.</u> 14. <u>pusillum</u>, Gray.
- 15. Cypris Faba.
- 16. Cypris. A larger species.
- 17. Vertebræ of small fish.

Land Fossil Shells, etc. from Bed No. 7. Sec. 9.

- 18. Helix paludosa; H. pulchella, Gray.
- 19. rufescens.
- 20. ____ radiata ; Zonites rotundatus, Gray.
- 20. Tautati ; Zonites Totanatas, Gray.
 21. alliaria.
 22. umbilicata ; Zonites umbilicatus, Gray.
- 23. --- conoidea. A new species. Pl. II. f. 4, 5.
- 24. Pupa edentula.
- 25. Clausilia.
- 26. Bulimus lubricus.
- 27. Carychium minimum.
- 28. Molar tooth of a Rodent, probably a Water Rat.
- 29. Seeds of Chara.
- 30. Triloculina inflata (Deshayes), figured in Lyell's ' Prin. of Geol.' vol. iii. This minute fossil occurs both at Clacton and Walton : it is the only marine shell in this bed.

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The following are descriptions of the two new shells found in this deposit :—

Planorbis helicoides. Lenticular, shining, above slightly convex and minutely umbilicated; edge obtuse; whorls two and a half, concealed, the outer one large; beneath convex, a little depressed in the centre, where the whorls are visible.

Diameter about one-tenth of an inch. It resembles somewhat Zonites (Helix) radiatulus, but is flatter, having more the form of Segmentina (Planorbis)-lineata, but wanting the septa.

Helix conoidea. Short, conical, finely striated; whorls about six, convex; base largely umbilicated, convex; aperture oblongovate, its upper half deeply impressed by the preceding whorl; its peristome confined to the lower half, prominent and straight.

This differs from H. rufescens in being regularly conical, and having a more elevated pointed spire. See Plate II. figs. 4, 5, in this volume.

BIBLIOGRAPHICAL NOTICES.

On the Relation between the Holy Scriptures and some Parts of Geological Science. By J. Pye Smith, D.D. 12mo. London, 1840. 2nd ed.

The Certainties of Geology. By W. Sidney Gibson, F.G.S. 8vo. London, 1840.

No two subjects would appear at first sight to be more disconnected than those of Geology and Revealed Religion. The one is engaged solely in examining the structure of the earth, and in thence deducing conclusions as to the physical causes which have brought it into its present condition; the other treats of the moral history of man, his relations to his Creator and to his fellow-creatures, and the whole sphere of his duties and his destinies. So wholly distinct indeed are these two studies, that they cannot be said in the slightest degree to aid each other. A geologist may reason with precisely the same accuracy on the facts of his own science, even should he unfortunately be a disbeliever in Revelation; and it is equally certain that a knowledge of the discoveries of modern Geology is not (except as connected with Natural Theology) in the remotest degree conducive to the all-important studies and devotions of the Christian. There seems, therefore, no reason why the two inquiries should not be successfully prosecuted without encroaching on each other's domain. The fact however is otherwise : Geology and Revelation have been very unnecessarily brought into collision by persons who seem to have but an imperfect notion of the true limits and ends of each. Volumes have been written accusing geologists as a body with being inimical to religion, and denouncing the science itself as a delusive and pernicious study. The geologist is hence compelled in self-defence, however unwilling he may be to desert the legitimate fields of his inquiries, to arm himself against these well-meaning, though

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